Aegean Interest on the Uluburun Ship

CHRISTOPH BACHHUBER

Abstract

The inventory of elite manufactured objects and the large quantity of metal recovered from the Late Bronze Age Uluburun shipwreck mirror in many respects palatial gift exchange deliveries as they are recorded in the contemporary Amarna Letters. The excavator of the shipwreck proposes that two men of Aegean origin were on board and that the ship was sailing to the Aegean. By combining data generated from the Uluburun shipwreck with textual and archaeological evidence from the contemporary Near East and Aegean, this paper evaluates the plausibility of a diplomatic voyage en route to the Aegean tied to Mycenaean palatial enterprise.*

INTRODUCTION

Evidence for a singular diplomatic voyage to the Late Bronze Age Aegean was first advanced by Hankey over two decades ago. In this scenario, an Egyptian delegation representing Amenhotep III visited numerous polities in the Aegean. She begins with observations on a statue base of Amenhotep III in his mortuary temple at Kom el-Hetan.[1] The statue base is inscribed with 14 place-names, listing important centers in the LH/LM III Aegean (i.e., Knossos, Boetian Thebes, Mycenae, Troy).[2] Hankey cautiously proposes that the inscribed statue base records an Egyptian voyage to the Aegean.[3] Her proposal has been taken up by Cline,[4] who suggests that the "Aegean List" is an itinerary, as the place-names follow a roughly circular pattern around the Aegean, beginning and ending with Crete.[5]

Fourteen objects associated with the reign of Amenhotep III have been identified in the Aegean (nine of the 14 at Mycenae).[6] From Mycenae, a faience vase and fragments from at least four faience plaques inscribed with the cartouche of Amenhotep III were recovered from LH IIIA and LH IIIB contexts, respectively. Two scarabs of Queen Tiyi, Amenhotep's wife, have also been found at Mycenae in LH IIIB contexts.[7]

Hankey and Cline have proposed that the objects belonged to an official Egyptian delegation that visited the Aegean during the reign of Amenhotep III.[8] This voyage of "gift exchange" appears to have been recorded on the Aegean List of Kom el-Hetan. Cline, following Schulman, proposes that the embassy to the Aegean was one of several Egyptian diplomatic gestures toward various regional powers in the Levant.[9] Egypt's interest in these kingdoms (including Ugarit, Mitanni, and Babylon) was their proximity to the landmass of Asia Minor. Amenhotep III had established alliances with the neighbors of Hatti in an effort to contain the Hittites and their aggressive policies in 14th-century Syro-Palestine.

Reconstructions of contact between the Bronze Age Aegean and its neighbors are uniquely challenging to devise. Much of the difficulty arises from the inadequacy of the textual evidence. The Minoan script has yet to be deciphered, the Mycenaean archives are notoriously elusive on issues related to trade and foreign contact, and references to the LH/

*I wish to thank Cemal Pulak for walking me through the labyrinth that is the Uluburun shipwreck, and for giving me the opportunity to ponder over aspects of his life's work. Additional thanks go to him for entrusting me with the Uluburun field catalogues and for his final review of the paper. The Institute of Nautical Archaeology (INA) and Prof. Pulak were very kind to grant me permission to use an image from the INA "virtual museum" Web site for use in this paper. Many thanks go to Cynthia Shelmerdine for her encouragement, guidance, and her generosity of time and energy. Thanks also to Sue Sherratt for her keen observations and critique of my work. I wish to thank Shelley Wachsmann for his observations, comments, and guidance. My thanks go also to Elizabeth Frood for her review of the paper in its final stages. I am grateful for my correspondence with Jeremy Rutter, who gave me permission to reference his unpublished work on the Aegean ceramics from the Uluburun shipwreck, as well as for my correspondence with Nicolle Hirschfeld, who gave me permission to reference her unpublished work on the Cypriot ceramics from that shipwreck. Last, I wish to thank Eric Cline for reviewing the paper in its formative stages, and for laying such an important foundation for future studies of Late Bronze Age long-distance trade. The title of the paper is in memory and appreciation of Vrowny Hankey (see Hankey 1981). Any errors in the paper are of my own negligence.

[1] For publication of the statue base, see Edel 1966.

[2] Edel 1966, 37–48.

[3] Hankey 1981, 45.

[4] Cline 1987; 1990–1991, 22–7; 1994, 38–9; 1998a, 244–45.

[5] Cline 1990–1991, 25; 1994, 39; 1995b, 94–5; 1998a, 245.

[6] Hankey (1981, 45–6) discusses only the plaques. The remaining Amenhotep III objects are either initially published by Cline (1990, one faience plaque from Mycenae) or cited and discussed by Cline 1987, 11–13; 1990; 1994, 39; 1995b, 94–5.

[7] Cline 1987, 8–9.

[8] Hankey 1981, 45–6; Cline 1987; 1990–1991, 22–7; 1994, 38–9; 1998a, 244–45.

[9] Schulman 1979, 183–85; 1988, 59–60; Cline 1994, 41–2; 1998a, 248–49.

LM IIIA–B Aegean seldom appear in contemporary Near Eastern texts. Thus, scholarship is forced to rely on less dependable bodies of evidence.

Cline's model is appealing because it fits very well within observable Egyptian stratagems in the 14th-century Near East, and has thus attracted few dissenting opinions. The hypothesis is also immune to the growing consensus in Bronze Age scholarship that the Egyptians and the Mycenaeans were not directly trading with one another.[10] A trade partnership, after all, does not appear to be the motivation for this Egyptian embassy.

Given the lack of Linear B texts that say anything explicit about contacts with Egypt, Hankey and Cline have substituted in their place inherently ambiguous evidence. Exotic objects identified in LH IIIA–B contexts become the Aegean cornerstone for their hypotheses. While Cline gets limited support from an interpretation of an illustrated papyrus from el-Amarna, believed to depict two Aegean mercenaries running to save a stricken Egyptian soldier,[11] the hypothesis for a diplomatic visit requires a leap of faith.

Objects bearing the cartouche of Amenhotep III and his wife were not necessarily delivered by an Egyptian embassy.[12] Further, the Aegean List demonstrates an Egyptian knowledge of the Aegean—nothing more. Neither field of evidence conclusively demonstrates a gift exchange delivery. Nevertheless, an Egyptian embassy to the Aegean remains an intriguing possibility, and perhaps, if more conclusive evidence comes to light, the hypothetical visit can be demonstrated to be a significant historical event.

AN ALTERNATE THEORY OF HIGH-LEVEL EXCHANGE

There are other models for exchange that may account for the evidence currently available for the LH/LM IIIA2 Aegean. Pulak has made several interesting observations on patterns of objects recovered from the Uluburun wreck that he has labeled "personal effects." A discussion of the personal effects is our only avenue for assessing the makeup of the men on board, since the site has produced no epigraphic evidence. Even if it had, would texts necessarily betray all the languages spoken on the ship?

An examination of the proposed personal effects is hampered by several ambiguities inherent to a shipwreck site. Personal effects make up a small percentage of the objects recovered, including the cargo, anchors, and ballast. With the entropy of a wreck site, the diminutive personal possessions are integrated into the larger matrix of the ship's cargo. Any manufactured object in the ancient world, so long as it would fit in the hold of a ship, could conceivably be stowed as a commodity. Is it possible, then, to isolate personally owned artifacts and their owners from this jumbled matrix? Futhermore, if the objects identified as personal effects were actually worn and used by the ship's personnel, are they reliable ethnic indicators? The men on board were well traveled, routinely exposed to the rich diversity of cultures occupying the shores of the greater eastern Mediterranean. It is conceivable that a Near Eastern merchant, out of sheer novelty, fashion sense, vanity, or for some reason beyond our understanding, could have worn the amber bead jewelry recovered from the site. Amber, which is popular in the Aegean, is exceedingly rare in the Bronze Age Near East.[13] More fundamental, however, are the potential theoretical pitfalls of assigning ethnic labels to objects deposited onto the seafloor. These I address below.

Observations on the ship's cargo might help to alleviate some of the ambiguities inherent in the identification and interpretation of so-called personal effects. The cargo can offer clues to a ship's last ports of call and its probable trajectory. More significantly, it may provide points of contact to shipments recorded in contemporary texts, as appears to be the case for the Uluburun ship. In short, the nature of the Uluburun cargo can lay a foundation from which we can begin to speculate about the origins of its personnel.

---

[10] The trend in Bronze Age Mediterranean scholarship, beginning with Bass (1967, 14–18) and Merrillees (1968, 195), is to understand trade between the LH/LM IIIA–B Aegean and the greater eastern Mediterranean as the prerogative of either Cypriot or Syro-Palestinian middlemen; see also Bass 1973, 36; 1991, 73–4; 1997, 83–5; 1998, 184–87; Merrillees 1974, 8; Kemp and Merrillees 1980, 278; Yannai 1983, 101–14; Gillis 1995, 64–73; Artzy 1997; Sherratt 1999; 2001, 224, 234; Manning and Hulin 2005, 281.

[11] Schofield and Parkinson 1994, 161–62, 169, figs. 1, 2.

[12] Lilyquist (1999, 303–4) challenges Cline's "gift exchange" designations for the plaques at Mycenae. She calls into question the ultimate worth of the faience plaques to the Egyptians. Though faience plaques bearing the cartouche of other Pharaohs certainly existed in the New Kingdom, Lilyquist finds no exact parallel for the Mycenae plaques in Egypt. The plaques at Mycenae are differentiated from the corpus in Egypt predominantly by the arrangement of their inscriptions. Until comparanda for the faience plaques in Mycenae are found in Egypt, the worth of these objects to the Egyptians cannot be determined. In other words, there is no way of knowing yet whether these objects were valuable enough to deliver as gifts to a foreign palace.

[13] See infra n. 90 for amber objects identified beyond the Aegean (and the Uluburun shipwreck) in the Bronze Age Near East/eastern Mediterranean.

Pulak points to a pairing of ornamental and utilitarian objects of Aegean manufacture on the Uluburun ship and concludes that two men of Aegean origin were on board.[14] I tentatively accept his theory as a possibility but ask if it is possible to demonstrate the mechanism of trade he is implying. Is there enough evidence in the texts, archaeology, and iconography of the Late Bronze Age eastern Mediterranean to support his hypothesis?

THE TRAJECTORY OF THE ULUBURUN SHIP

As is well known, the Uluburun ship sank off the Lycian coast in the late 14th century B.C.E. (fig. 1) while hauling an extraordinary cargo.[15] Eighteen LH/LM IIIA2 Aegean stirrup jars and one flask have been recovered from the site.[16] The well-demonstrated synchronism between LH/LM IIIA2–B1 pottery and the reign of Akhenaten[17] suggests that the Uluburun ship sank very near to or in the Amarna period; that it can be no earlier is established by the Nefertiti scarab recovered from the site.[18]

The number of Aegean transport vessels is minimal compared with the large haul of Near Eastern pithoi and amphoras, including nine large Cypriot pithoi and at least 149 Canaanite jars.[19] There should be more Aegean transport pottery than Near Eastern pottery if the ship had just left the Aegean and was sailing east. It is salient that several of the Aegean transport ceramics show considerable use-wear, which may suggest that this pottery was in recirculation when it was laden onto the ship.[20]

The roughly 150 Canaanite jars of terebinth resin, olives, and glass beads were likely hauled aboard at a Syro-Palestinian port.[21] Pulak sees numerous parallels between the cargo of the Uluburun ship and the storehouses of Minet-el Beidha, one of the ports serving Ugarit.[22] The presence of nine large Cypriot pithoi filled with oil, pomegranates, and Cypriot pottery,[23] as well as 10 tons of copper from sources on Cyprus,[24] suggests that Cyprus was the last or nearly the last port of call for the ship. Pulak introduces the possibility that goods may have been transshipped before being laded onto the ship (i.e., from Cyprus to Syro-Palestine), thus adding considerable uncertainty to a reconstruction of its itinerary.[25] Nevertheless, additional evidence, namely the numerous anchors, leaves little doubt that it was fully outfitted at one or more Near Eastern ports. All 24 anchors find their closest parallel to sets of anchors recovered from terrestrial sites at Kition (Cyprus), Ugarit (Syria), and Byblos (Lebanon).[26] These anchor types are also found commonly off the coast of Israel.[27]

The probable Aegean destination for the cargo has been assessed by Cline: "[T]he breakdown (by percentage) of the Uluburun shipwreck's worked cargo, in terms of country of origins, presents a remarkable similarity to the breakdown (by percentage) of the worked Orientalia found in LH/LM IIIA and IIIB contexts within the Aegean area."[28] In other words, the cargo of the Uluburun ship is an important manifestation of trade between the LH/LM IIIA2 Aegean and the greater Levant.[29]

---

[14] Pulak 1997, 252–53; 1998, 218; 2000b, 264; 2001, 14, 49.

[15] The initial dating of the Uluburun shipwreck was determined through dendronchronological analysis of a cedar branch (probably used as dunnage) recovered from the site. A date of 1305 (Pulak 1998, 213–14) was based on the Anatolian tree-ring sequence published in 1996 (Kuniholm et al. 1996). An upward revision of 22 (+4 or -7) years was recently proposed for the ring sequence (Manning et al. 2001), which would date the wreck to 1327. None of the bark from the branch, however, has survived. The most external rings may have deteriorated, thus adding considerable uncertainty to any absolute date for the shipwreck (Pulak 1998, 213–14). Radiocarbon dates for the wreck are currently being generated. Newton and Kuniholm (2005) corroborated radiocarbon dates from the cedar branch with the dendrochronological data and determined the branch to be older than previously published dendrochronological results. Radiocarbon dates for other materials from the wreck, however, including the brushwood dunnage, terebinth resin, and olive pits, are closer to the end of the 14th century (C. Pulak, pers. comm. 2005).

[16] I am grateful for communication with Rutter, who generously provided his unpublished manuscripts on the Aegean pottery recovered from the Uluburun shipwreck (Rutter 2005). He concludes that the majority of the stirrup jars are of Cretan manufacture, while a few were made in the Dodecanese (Rhodes) and the Greek mainland.

[17] Hankey 1973, 128–32; 1981, 44; 1987, 48–50; Haider 1988, 35–6; Warren and Hankey 1989, 148–54; Cline 1994, 7.

[18] Bass et al. 1989, 17–29.

[19] Pulak 1998, 201, 204; 2001, 33, 40.

[20] J. Rutter, pers. comm. 2005.

[21] Hairfield and Hairfield 1990; Pulak 1998, 201; 2001, 33.

[22] Pulak 1997, 252.

[23] Pulak 2001, 40–1.

[24] Stos-Gale et al. 1998, 119.

[25] Pulak 1998, 215.

[26] Wachsmann 1998, 283.

[27] See Pulak (1998, 216) for anchor finds off the Israeli coast.

[28] Cline 1994, 100. Pulak has made an important observation on the cargo of Cypriot ceramics on the Uluburun ship: where 68 Cypriot ceramic vessels have been identified in all phases of the Late Bronze Age Aegean (Cline 1994, 60; Pulak 2001, 42), approximately 135 were recovered from the wreck (Pulak 2001, 40–2). Presuming the Uluburun ship was en route to the Aegean, a single cargo of Cypriot ceramics doubles the entire corpus of Cypriot ceramic finds in the Late Bronze Age Aegean (Pulak 2001, 42; Manning and Hulin 2005, 282). Cline's database for imported objects in the Bronze Age Aegean represents only the tip of the iceberg for the volume or magnitude of trade between the Aegean and greater Levant. The occurrence, however, of Cline's "orientalia" on board the Uluburun ship is significant and reveals a virtual microcosm of westbound trade in the Late Bronze Age eastern Mediterranean.

[29] Pulak 1997, 255–56; 1998, 218–20; 2001.

Fig. 1. Important Late Bronze Age sites and centers mentioned in the text.

IMPLICATIONS FOR THE CARGO: ADDRESSING GIFTS AND COMMODITIES

Specific components of the ship's cargo are directly relevant to this discussion.[30] The Uluburun shipwreck has produced an extraordinary cache of copper and tin ingots.[31] No fewer than 354 copper oxhide ingots (fig. 2), as well as 121 smaller bun- (or plano-convex) and pillow-shaped ingots weighing together about three-quarters of a ton, have been identified. The total copper cargo weighs approximately 10 tons. The number of tin ingots (mostly in oxhide form) cannot be counted accurately, as all but three were cut into quarters and halves,[32] and many have deteriorated into a paste consistency on the seafloor.[33] However, it has been estimated that nearly a ton of tin went down with the ship. The proposed amounts of copper and tin fit the desired copper to tin ratio for bronze production (10:1 observed in actual artifacts of this period).[34]

Comparable seaborne deliveries (in talents) of metal are recorded in Bronze Age texts. A talent measure is estimated to weigh about 28–29 kg.[35] The average weight of a copper ingot from the Uluburun site is 24 kg.[36] The ship's cargo would thus amount

[30] The cargo of the Uluburn ship is being exhaustively analyzed and published under the leadership of Pulak at Texas A&M University. For the most current and complete discussion of the cargo, see Pulak 2001.

[31] Pulak 2000a, 137.

[32] Pulak 2000a, 140, 143, 150.

[33] C. Pulak, pers. comm. 2002

[34] Pulak 2001, 22.

[35] Pulak 2000b, 263.

[36] Pulak 2001, 18.

to about 325 talents of copper,[37] which is comparable to deliveries mentioned in contemporary texts. In one Amarna letter between the king of Alashiya and Pharaoh, the Alashiyan king apologizes for having sent only 500 talents of copper to Pharaoh.[38] In another, we learn that Pharaoh had requested 200 talents of copper from the Alashiyan king.[39] Copper and tin were also used as liquid assets, or as mediums of priced exchange. In a letter from a prefect of Qadeš to the king of Ugarit, there is a dispute over a delivery of copper and tin from Ugarit to Qadeš, which was exchanged for pack animals.[40]

The rulers of the Late Bronze Age world were vested in the exchange of metals, and such transactions often occur under the rubric of "gift exchange" in the Amarna Letters. Gift exchange was the modus operandi for diplomatic relations where political equals offered gifts to one another to facilitate a relationship of reciprocity and further gift giving.[41] Such exchange was practiced at the highest echelons of politics and society in the Late Bronze Age. Many of the gifts were prestige items or objects and materials of high intrinsic and cultural value.[42]

Gift cargoes circulated in an arena of long-distance exchange, dominated (at least in volume) by the transport of bulk commodities. Generally, the last five centuries of the Bronze Age saw an increase (in the eastern Mediterranean) in the scale of production and a concomitant rise in maritime traffic. The intensification of exchange was most clearly manifested in the adoption of uniform commodity units, namely in oxhide ingots for metals and Canaanite jars for organics.[43]

The escalation in exchange also profoundly affected political relations in the Late Bronze Age. Elaborate gestures of gift giving were one expression of this, and the resulting nexus of economics and politics, of commodity and gift, has been the focus of much discussion.[44]

One problematic aspect of studying gift exchange in its broader political and economic context is distinguishing "gift" attributes from "commodity" attributes in transactions. Gregory defines a commodity as follows:

> [A] socially desirable thing with a use-value and an exchange value. The use-value of a commodity is an intrinsic property of a thing desired or discovered by society. . . . "Exchange-value" on the other hand is an extrinsic property, and is the defining characteristic of a commodity. Exchange value refers to the quantitative proportion in which use values of one sort are exchanged for those of another sort.[45]

Commodities are alienable or psychically and emotionally detached from the transactors and thus may be exchanged by the transactors as private property free of reciprocal obligations.[46] Gifts, however, are inalienable objects that possess an "indissoluble bond" with their original owner.[47] A gift necessarily carries an emotional or psychological burden and upon receipt calls for reciprocation. Thus, gift exchange establishes a relationship between the individuals en-

Fig. 2. A typical copper "oxhide" ingot recovered from the Uluburun shipwreck (© 2002 The Institute of Nautical Archaeology).

[37] Pulak 1997, 251.

[38] Moran 1992, *EA* 35.10–15. This paper relies on Moran (1992) for the translation of the Amarna Letters and thus uses his abbreviation system: *EA*, followed by the number of the Amarna letter and the lines referenced.

[39] Moran 1992, *EA* 34.9–18.

[40] Nougayrol et al. 1968, 117–20; Liverani 1979, 29.

[41] Knapp and Cherry 1994, 146; Cline 1995a.

[42] "Gift" is used here in the broadest sense of the word.

[43] Sherratt and Sherratt 1991, 363, 369–73.

[44] Much of the literature for Bronze Age gift exchange is influenced by classic anthropological works (e.g., Malinowski 1922; Mauss 1954). Manning and Hulin (2005, 288) raise the important point that nearly all discussions of elite exchange within the Bronze Age Near East and greater eastern Mediterranean are either implicitly or explicitly framed within the theoretical underpinnings of these ethnographic studies. They stress that the exchange systems of the maritime cultures of Melanesia may not offer appropriate models for the exchange systems of the Bronze Age Near East (see Manning and Hulin 2005, 288–91 for a tentative [and partial] alternative model). Many thanks to Hulin for drawing my attention to her and Manning's article, though only days before submitting this paper. Time constraints did not allow me to fully integrate their work into my own.

[45] Gregory 1982, 10–11.

[46] Gregory 1982, 12 (after Marx 1867, 91).

[47] Gregory 1982, 18–19 (after Mauss 1954).

gaged, while commodity exchange establishes a relationship between the objects.[48]

How distinct are these two modes of exchange in practice? Can we really differentiate between the two in the texts and archaeology of the Bronze Age Near East? One blurring factor between gifts and commodities has been eloquently addressed by Bourdieu. Both are exchanged through calculated, rational self-interest, and a gift transaction has the ultimate effect of projecting into the future by guaranteeing the circulation of desirable commodities.[49] Here, gift exchange and commodities exchange meld diachronically into a seamless transaction.

The blurred boundaries between gift and commodity are very well expressed by the Bronze Age circulation of metals in the eastern Mediterranean. Nonprecious metals in the Amarna Letters were exchanged as gifts, though attributes of the circulation of metal hardly meet the criteria for gift giving as Gregory defines it. The dispute between the prefect of Qadeš and the king of Ugarit, mentioned above, over the exchange of pack animals for copper highlights the liquidity of nonprecious metals in a precoinage economy. Metal's liquidity is antithetical to the concept of a gift, which is meant to possess an indissoluble bond with its original owner. The liquidity of metal creates exchange value, the possession of which is a defining attribute for a commodity. It appears that nonprecious metal in the Bronze Age Near East was exchanged as a gift but circulated as a commodity. Precious metals were treated in a similar manner. Objects crafted of gold or silver in the Amarna gift inventories are often qualified by their weight in shekels and minas. More explicitly, Egyptian gold objects arriving at Babylon and Washukanni are smelted into ingots and then weighed.[50] The feature of liquidity is again added to objects listed as gifts, thus undermining their attributes as gifts. If precious metal objects, which make up a significant proportion of the Amarna gift inventories, are actually liquid assets, can we be certain that any object in the inventory is not a commodity? In other words, where are the gifts in the Amarna gift inventories?

Liverani's discussion of "irrational trade" in the Amarna Letters may be helpful in this regard. A correspondence between a governor of Alashiya and his counterpart in Egypt is concerned with a gift of ivory that the Alashiyan (Cypriot) official is delivering to Egypt.[51] In this same letter, the Alashiyan requests a shipment of Egyptian ivory.[52] Liverani recognizes two irrational elements in this transaction. The first concerns the great economic cost of delivering this ivory to Egypt so that it may be replaced by another shipment of ivory from Egypt. Clearly, the Alashiyan is gaining no economic advantage in this transaction. The second irrational element includes the "anti-economical nature of exporting ivory from Cyprus, which does not produce it, to Egypt, which by virtue of having access to the vast African reserves is the privileged exporter of this material."[53] Liverani maintains that the seeming irrationality of the exchange has the twin effects of transcending economic motivation and ensuring friendly relations between the participants.[54] The economic irrationality of the transaction eliminates the exchange value of the ivory while simultaneously demonstrating an indissoluble bond between the ivory and the Alashiyan governor. Thus, the exchanges of ivory in *EA* 40 may be said to represent pure gift-giving behavior in the Amarna Letters.

The Archaeology of Gifts

Is it possible to isolate pure gifts in the archaeological record? The following elements of the cargo from the Uluburun shipwreck are reflected in the gift exchange inventories and correspondences of the Amarna Letters: bulk metals (see fig. 2), rhyta,[55] raw ivory and ivory carvings and crafts,[56] a gold goblet,[57] ebony,[58] glass ingots,[59] and an assortment of gold jewelry.[60] We can suggest with some confidence that the metal ingots and metal objects from the Uluburun ship possess an element of liquidity and consequently exchange value, and thus may be classified as commodities. As for gifts, however, an archaeological context cannot assuredly demonstrate whether an object possesses an indissoluble, emotional, or psychic bond with a gift exchange partner. "Gift," therefore, may be an inappropriate term to apply to any element of the Uluburun cargo. We can extend this observation to critique suggestions that Egyptian (or

[48] Gregory 1982, 19.
[49] Bourdieu 1977, 171.
[50] Liverani 2000, 24–5.
[51] Moran 1992, *EA* 40.12–15; see also pp. 354–55 herein.
[52] Moran 1992, *EA* 40.6–11.
[53] Liverani 1979, 22–3.
[54] Liverani 1979, 24.
[55] Bass et al. 1989, fig. 12; Moran 1992, *EA* 25.35–47, 25.49–51.
[56] Moran 1992, *EA* 25.25–6, 25.28–31; Pulak 2001, 37.
[57] Bass 1986, 286, 289, fig. 24; Moran 1992, *EA* 25.76–7.
[58] Bass et al. 1989, 9–10; Moran 1992, *EA* 25.28–31.
[59] Moran 1992, *EA* 148.4–17, 314.17–22, 327.11–21, 331.12–24; Pulak 2001, 25–6.
[60] Moran 1992, *EA* 25; Pulak 2001, 24.

otherwise foreign) objects in the Aegean constitute gifts in the truest sense of the word.

However, the parallels between the ship's cargo and the Amarna inventories, as manifestations of elite exchange networks, are worthy of further consideration. If the Uluburun ship were en route to the Aegean world, some of the cargo of raw materials may have been destined for the palatial workshops. Most specialists concur that metal (including precious metals) entered the Aegean world through the palaces and was distributed from them to palace-sponsored workshops.[61] Similarly, the unworked ivory recovered from the Uluburun ship (one elephant tusk and 14 hippopotamus teeth)[62] may have been en route to ivory-carving workshops, which were also the exclusive domain of the Mycenaean palace.[63] The large quantities of terebinth resin recovered from the cargo (approximately 1 ton) can be similarly explained. Terebinth resin is drawn from the *Pistacia atlantica* tree[64] and was widely used as an aromatic in later periods in the Aegean.[65] The Knossian Linear B archives record an enormous delivery of *ki-ta-nu* to the palace; Melena has interpreted *ki-ta-nu* as a pistachio product—probably terebinth resin.[66] The association of metallurgy and ivory carving to Mycenaean palatial industry, as well as the possible palatial demand for terebinth resin, may tie the doomed voyage of the Uluburun ship to palatial enterprise in the Aegean.

THE PERSONNEL OF THE ULUBURUN SHIP

The stage is now set for a discussion of the individuals who were on board the Uluburun ship. Before reviewing the objects Pulak has identified as personal effects, it is necessary to assess some relevant textual evidence for high-level exchanges in the Bronze Age world.

Gift exchange was a complex gesture involving politically and economically motivated behavior, both of which are embodied in Near Eastern texts by the role of *mār šipri*, which is translated as "messenger." Messengers were the pawns of a highly elaborate game of Late Bronze Age interregional diplomacy. These were men appointed by their king to deliver his well wishes, demands, and grievances to his counterparts in other kingdoms. Words, however, were not all that were delivered. Cargoes of elite exchange, such as those discussed above, often accompanied the messengers.

Two separate grievances in the Amarna Letters refer to "messenger" as *tamkār,* or merchant. In one, the king of Karaduniyas insists that Pharaoh find and execute the murderers of his merchants, to whom he also refers to as his "servants." He warns that if the murderers are not executed, "they are going to kill again, be it a caravan of mine or your own messengers, and so messengers between us will thereby be cut off."[67] In another, we read the king of Alashiya demanding Pharaoh to "let my messengers go promptly and safely so that I may hear my brother's greeting."[68] In the next sentence the Alashiyan king reminds Pharaoh: "These men are my merchants."[69] Clearly, "ambassador" is synonymous with "merchant" in these texts.[70]

Messengers are also associated with merchant activity when the king of Ugarit exempts the powerful Ugaritic merchant Sinaranu from serving as a messenger, which presumes that merchants at Ugarit were regularly employed as envoys.[71] Additionally, there are numerous references to messengers being deployed with caravans.[72]

Messengers were also, on occasion, sent by boat. We hear of the Alashiyan king dispatching his messenger/merchants in ships to Egypt,[73] and of the king of Mari considering sending a messenger from Ekallatum by boat.[74] Last, the arrival of Keftiu (Cretan) emissaries to 18th-Dynasty Thebes leaves little doubt that Bronze Age Aegean ambassadors arrived in Egypt on seafaring ships.[75]

Identifying Personnel from Utilitarian and Ornamental Objects

Pulak has noted some interesting patterns of objects on the Uluburun shipwreck. The overwhelming percentage of utilitarian and ornamental objects, for example, is of either Syro-Palestinian/Cypriot or

[61] Lejeune 1961, 409–34; Lang 1966; Killen 1987; de Fidio 1989; Smith 1992–1993.
[62] Pulak 2001, 37.
[63] Kopcke 1997, 43; Voutsaki 2001, 197.
[64] Mills and White 1989; Pulak 1998, 201.
[65] Niebuhr 1970, 43; Melena 1976, 182.
[66] Melena 1976, 180–82.
[67] Moran 1992, *EA* 8.8–21.
[68] Moran 1992, *EA* 39.10–13.
[69] Moran 1992, *EA* 39.14–20.
[70] Astour 1972, 23–4; Knapp 1991, 49; Cline 1994, 85; Wachsmann 1998, 307.
[71] Meier 1988, 29–30.
[72] Meier 1988, 80–2.
[73] Moran 1992, *EA* 39.14–20.
[74] Birot 1974, 127.18–24. Another Mari text reads: "The boats which were with Larim-Bahli arrived and Yammu Qadum the messenger of Yamhad arrived with him" (Kupper 1950, 56).
[75] See p. 354.

Aegean manufacture.[76] Syro-Palestinian weaponry, including a sword, several daggers and arrowheads, Syro-Palestinian pan-balance weights,[77] two diptychs (wooden writing boards),[78] and two types of oil lamp (of Syro-Palestinian and Cypriot manufacture)[79] have all been recovered from the site. A pair of bronze cymbals[80] and an ivory trumpet,[81] both of Syro-Palestinian manufacture, may suggest shipboard musical amusement (though they could also represent elite cargo). It may be that a partly gold-clad bronze statuette, also of Syro-Palestinian manufacture, had ritual significance.[82]

Other recovered artifacts include a small service of fine LH IIIA2 drinking vessels,[83] two Aegean-type swords,[84] roughly 10 Aegean-type spear points,[85] three curve-bladed knives that appear to be Aegean in origin,[86] at least three Aegean-type razors,[87] six Aegean-type chisels,[88] Aegean glass relief plaques from (probably) two pectorals,[89] 41 Baltic amber beads,[90] at least 200 flattened blue ovoid faience beads (occasionally seen as necklaces in LH III burials),[91] a gadrooned spherical quartz bead of typical Aegean shape,[92] and a pair of Aegean seals.[93] A number of the Aegean objects were found in pairs, including the swords, the glass relief plaques (in two motifs), the drinking jugs,[94] and the seals. This conspicuous pairing argues against assuming that these objects were randomly picked up as trinkets or bric-a-brac. It is also salient that several of these Aegean objects, including the glass relief beads,[95] the chisels,[96] the spear points,[97] and the knives,[98] had not been identified outside of the Aegean prior to the excavation of the Uluburun ship.

Pulak has suggested that this assemblage of Aegean manufactured objects represents the personal effects of a pair of Mycenaeans.[99] Here, it is necessary to raise a note of caution. The proposed destination for the Uluburun ship, namely a palace center in the Aegean, is not self-evident. Neither is it clear that men of Aegean origin were aboard ship. We should, therefore, examine the assemblage of Aegean manufactured objects for what it is: a collection of objects

[76] The exceptions include a stone scepter/mace (Pulak 1997, 253–54, fig. 20) and a globe-headed pin (Pulak 1988, 29–30, fig. 36), both of which share comparanda in the Balkans (Romania and Bulgaria for the scepter/mace and Albania for the pin) (Pulak 2001, 47). The globe-headed pin, however, also shares comparanda with pins in Sub-Mycenaean Greece. Pulak (2001, 47) suggests the pin recovered from the Uluburun shipwreck probably represents the earliest Aegean example of this type. The unique stone scepter/mace, however, shares no comparanda outside of the northern Balkans. A sword recovered from the wreck (Pulak 1988, 21–3, fig. 22) shares comparanda with swords identified in southern Italy and Sicily (Thopsos type) (Vagnetti and Lo Schiavo 1989, 223, fig. 28.2; Pulak 2001, 45–6). No other Italian utilitarian or ornamental objects have been recovered from the wreck. Daggers of this type (though not swords) have also been identified in Albania and are designated Thopsos type (Pulak 2001, 46–7). Any speculation, however, into the connection of the stone scepter/mace with the possible Thopsos-type sword would extend beyond the scope of this discussion. Features of the sword also share comparanda with Early to Late Cypriot daggers, and lead isotope data on one of the sword's rivets is consistent with a Cypriot origin for the sword. Pulak (2001, 47) raises the possibility the sword might also be Cypriot.

[77] Pulak 1988, 20–2, fig. 20, 23–4, 30–1, figs. 37–88.

[78] Bass et al. 1989, 10, fig. 19; Payton 1991, 101–10.

[79] Bass 1986, 281–82, fig. 14. Pulak (1997, 252) places special emphasis on the lamps as possible ethnic indicators. The Cypriot form appears in pristine condition within the pithoi as cargo. The Syro-Palestinian lamps, however, are burned at the nozzles. He suggests these are galley wares that may have been used by Syro-Palestinians.

[80] Bass 1986, 288–90.

[81] Pulak 1997, 244–45, fig. 13.

[82] Pulak 1997, 246, fig. 15.

[83] Pulak 2005; Rutter 2005.

[84] Pulak 1988, 21, fig. 21; 1998, 208, fig. 28, 218; 2001, 45; 2005.

[85] Pulak 1997, fig. 23; 1998, 218; 2005.

[86] Bass et al. 1989, 6–7, fig. 10; Pulak 1998, 218; 2005.

[87] Bass 1986, 292–93, fig. 33; Pulak 1988, 14–15, fig. 10; 1998, 218; 2005.

[88] Pulak 1988, fig. 14; 2005.

[89] Bass et al. 1989, 8–9, fig. 15; Pulak 1998, 218; 2005.

[90] Pulak 1998, 218; 2005. Pulak (2005) notes that many more amber beads likely floated away from the Uluburun ship, as amber is neutrally buoyant. Amber jewelry is abundant in Bronze Age Aegean contexts (see Harding and Hughes-Brock 1974), though it occurs infrequently in Bronze Age eastern Mediterranean contexts beyond the Aegean. The total recorded amber objects includes 17 amber scarabs identified in 18th-Dynasty Egypt (Lamberg-Karlovsky 1963, 301–2), two beads from Assur (Harding and Hughes-Brock 1974, 169), and six beads from Enkomi in Cyprus (Harding and Hughes Brock 1974, 169).

[91] Pulak 2005, 304.

[92] Bass et al. 1989, 8–9, fig. 16.

[93] Bass 1986, 283–85, fig. 20, pl. 17; Pulak 1998, 218; 2005.

[94] Rutter 2005.

[95] Harden 1981, 31–50.

[96] Deshayes 1960, 38–9; Pulak 1988, 17.

[97] The spear points belong to Avila's Type VI class, which have been identified in late LH IIIB–C contexts on the Greek mainland (Bachhuber 2003, 113; Pulak 2005, 299), making the Uluburun examples the earliest of its type (Pulak 1997, 254; 2001, 47; 2005, 299). A similar spear point has been identified in the Enkomi weapon hoard (Pulak 2005, 299), though dated to the first half of the 12th century B.C., or well after the sinking of the Uluburun ship.

[98] The Uluburun knives do not share comparanda in the eastern Mediterranean (Bachhuber 2003, 106 n. 400). The curved blades and the knobbed and ribbed handle of one of the blades are features found on Aegean examples. The Uluburun knives are unique, however, as no other knife combines both features (Bachhuber 2003, 114; Pulak 2005, 300–1).

[99] Pulak 1998, 218; 2001, 49; 2005.

deposited onto the seafloor within the context of a sunken ship.

Pulak's use of the term "Mycenaean" for both the assemblage of Aegean objects and the proposed owners of these objects is generally too broad.[100] It should be emphasized that there is nothing Mycenaean about the assemblage; there is no evidence that these objects were manufactured and used by Greek speakers whose lives were intrinsically bound to the Late Bronze Age citadels of Greece and Crete. The only certainty is that similar, if not identical, objects were manufactured and used by people living in the Aegean area.

Pulak's conclusions raise a fundamental concern that has been at the core of a difficult theoretical debate in recent archaeology: how to determine the relationship between material culture and ethnicity. While a comprehensive discussion of these developments extends beyond the scope of the paper, some of the observations that have arisen from the dialogue have significant implications in this context.[101]

There are no set or objective criteria for identifying ethnicity in an ethnographic, historic, linguistic, or archaeological context. The inherent difficulty with ethnicity as a concept is that it is, to use Hall's phrase, "socially constructed and subjectively perceived."[102] Unfortunately, our ability to identify ethnicity in any of these contexts is largely determined by the criteria we choose to define ethnicity.

Language and religion are often used as important criteria for identifying ethnicity, though any number of ethnographic and historical observations highlight the ineffectiveness of these two variables for distinguishing one population from another.[103] In any event, neither is applicable to the proposed Aegean presence on board the Uluburun ship. I have already noted that the site has produced no epigraphic evidence, and overtly religious or cultic objects are not among the assemblage of Aegean manufactured objects recovered (though Near Eastern cultic objects may be represented).

Theoreticians are generally moving beyond observable behavior as criteria for ethnic identity and into the realm of ideology and cosmology.[104] The development is having negative consequences for the field of archaeology. Shennan notes:

> Ethnicity . . . should refer to self-conscious identification with a particular social group at least partly based on a specific locality or origin. If we accept this definition, then it appears that prehistoric archaeology is in a difficult position as far as investigating it is concerned, since it does not have access to people's self-conscious identifications.[105]

Similarly, Hall (after Tambiah) isolates two attributes that might effectively pinpoint ethnicity: an identification with a specific territory and a shared myth of descent.[106] Needless to say, the context of the Uluburun shipwreck is wholly inadequate for identifying these attributes, and so, adhering to the above definitions, ethnicity cannot be readily attributed to the assemblage of Aegean manufactured objects recovered from the site.

We must tread carefully when discussing the personnel on board the ship. Nevertheless, the pairing of several of the object types of Aegean manufacture and the observation that many of the object types had not been identified beyond the Aegean prior to the ship's excavation does permit us to consider Pulak's conclusion that these objects may have been personal effects, worn and used by people on the voyage. It is enough, for the purposes of this discussion, to suggest that individuals with greater affinity to the Aegean area (as opposed to the Near East or Egypt) may have owned the objects, and so I here refer to them as "individuals of possible Aegean origin."

Pulak first suggested that these people were merchants[107] but has since retracted, based on his study of the pan-balance weights recovered, all but one of which were of Near Eastern manufacture.[108] The absence of an Aegean weight set suggests to Pulak that these individuals had little to do with the procurement of the cargo.[109] Consequently, the other personnel must have carried out all merchant activity on this voyage.[110] Pulak has suggested, therefore, that the Aegean personnel may have acted as Mycenaean emissaries, or messengers, accompanying a cargo of reciprocal gift exchange back to the Aegean.[111]

---

[100] Pulak 1997, 251, 253; 1998, 218–19; 2001, 45, 47, 49; see esp. 2005.

[101] For comprehensive treatments of the issues, see Arutinov and Khazanov 1981; Shennan 1994; Emberling 1997; Hall 1997, 111–42.

[102] Hall 1997, 19 (after De Vos and Romanucci-Ross 1995, 350).

[103] For the ineffectiveness of language as an ethnic indicator, see Hall 1997, 22 (after Geary 1983, 20). For the inadequacy of religion to distinguish ethnicity, see Hall 1997, 23 (after Just 1989, 81; Clogg 1992, 101).

[104] For an important exception, see Emberling 1997, 316–26.

[105] Shennan 1994, 14 (after Arutiunov and Khazanov 1981).

[106] Tambiah 1989, 335; Hall 1997, 25.

[107] Pulak 1988, 37.

[108] Pulak 2000b, 256–57. A single lead disk may represent an Aegean weight.

[109] Pulak 1997, 252–3; 2000b, 264; 2001, 14.

[110] See p. 352 for Near Eastern utilitarian and ritual objects.

[111] Pulak 1997, 252–53; 2000b, 264; 2001, 14; 2005, 308.

To reiterate, we should be cautious with ethnic qualifiers such as "Mycenaean," as well as with the concept of gift exchange when interpreting the evidence from the Uluburun shipwreck. In addition, there is nothing at the site that clearly points to a palatial destination in the Aegean. Nevertheless, voyages of elite exchange, couched in terms of "gift giving" in Near Eastern texts, are accompanied by individuals who are safeguarding the cargo and serving a diplomatic function. The cargo of the Uluburun ship appears to be a manifestation of elite exchange heading toward the Aegean. If we can accept the hypothesis that two individuals of possible Aegean origin were aboard, we should also consider the possibility that they were indelibly tied to its important cargo.

The pair of wooden and ivory-hinged diptychs illuminates some of the activities that may have occurred on the ship's voyage. The earliest archaeological evidence for the use of wooden writing boards dates to Old Kingdom Egypt,[112] though our fullest textual account for the use of wooden writing boards in the Late Bronze Age appears in Hittite texts. Writing boards in the Hittite world were used in numerous contexts, including temple administration[113] and for day-to-day palatial and provincial matters.[114] One reference to the wooden writing tablet describes its use in inventorying "tribute lists" from various places in Anatolia, Syria, Cyprus, Egypt, and Babylonia.[115] Writing boards were also used for letters and official documents. Hittite and Ugaritic texts describe messengers being dispatched to foreign palaces with wooden writing tablets.[116] There is no evidence that the inhabitants of the Bronze Age Aegean used such boards.

We may imagine two uses for the diptychs on the ship. As noted above, messengers were dispatched with wooden writing tablets, and although we will never know the content of this pair of diptychs from the Uluburun site, the elite elements of the cargo suggest some palatial interest on the voyage. Could one or both diptychs highlight the existence of messengers on board, as Pulak has suggested, delivering a document from one palace to another, to be presented with the accompanying haul of politically charged cargo? Given the observation that diplomatic documents (such as the Amarna archive) were normally recorded on clay, this scenario seems less possible.[117]

The greater likelihood is that one or both diptychs recorded the ship's register.[118] Symington observes that such writing boards were useful for everyday bookkeeping because the leaves, covered with wax and inscribed with a stylus, could be easily edited or erased.[119] A ship's cargo is in continual flux as commodities are laded and unladed with every port of call. The ship's register, recorded in wax, could have been amended accordingly.

Aegean Ambassadors?

Can we conceive then of an Aegean palatial presence aboard the Uluburun ship? The Minoans certainly dispatched emissaries to foreign shores, as recorded in the 18th-Dynasty tomb decorations of Senmut, Puimire, Intef, Useramun, Menkheperresonb, and Rekhmire.[120] The Aegean visitors in the tomb of Rekhmire are announced as "the chiefs of (the) Keftiu-land (Crete) and the islands which are within the Great Sea."[121] The Aegean "chiefs" were likely high-ranking representatives of a Minoan court.

The Mycenaeans also had messengers, assuming that the long-disputed Ahhiyawan/Mycenaean equation is correct.[122] Allusions to Ahhiyawan gift giving are made in two letters of Hattusili III. The first letter was addressed to an unknown king and reads: "Concerning the gift of the king of Ahhiyawa, about which you wrote to me, I do not know how the situation is and whether his messenger has brought anything or not."[123] The second (the so-called Tawag-

[112] See, e.g., Brovarski 1987.

[113] Laroche 1971, 698.

[114] Symington 1991, 118.

[115] Laroche 1971, 241–50; Symington 1991, 118.

[116] A letter of the Hittite Queen Puduhepa to the king of Alasiya reads: "Whenever the messengers reach you let 'my brother' send out a rider to me, and to the lords of the country let them present the wooden tablets" (Laroche 1971, 24, cat. no. 176). Another from Ugarit reads: "Now the writing board which they delivered to me, let them read (it) out before you" (Schaeffer 1978, 403).

[117] Dalley (pers. comm. 2006) wonders if diplomatic (or otherwise political) correspondence that was to be sent on a seafaring ship would have been inscribed in wax rather than clay. Her argument, based on the solubility of an unbaked clay tablet, which, when in contact with water, would have suffered damage, is an interesting one. But the positive identification of the "Alashiya tablets" in the Amarna archives with Cypriot clay sources (see p. 357 herein) does suggest clay tablets were traveling by sea.

[118] Pulak 1997, 252.

[119] Symington 1991, 113–16, 118.

[120] For the most comprehensive discussion of the Keftiu in 18th-Dynasty tomb decorations, see Wachsmann 1987. See also Rehak (1998, 40 n. 12) for an updated bibliography.

[121] Davies 1943, 20.

[122] For more recent equations of Ahhiyawan with Mycenaean, see Hawkins 1998, 30–1; Neimeier 1998.

[123] Sommer 1975 (1932), 242–48.

alawa Letter) is a grievance to a king of Ahhiyawa. He complains: "But when [my brother's messenger] arrived at my quarters, he brought me no [greeting] and [he brought] me no present."[124]

If an Aegean palace was represented by men aboard the Uluburun ship, as Pulak has suggested, it follows that some trace of these officials could appear in the Linear B texts. The speculative case for a Mycenaean palatial presence on the ship is compounded by the content of the Linear B archives, which are not so forthcoming on issues of trade and interregional contact.[125] Nevertheless, it remains an intriguing consideration, which I have addressed more fully elsewhere.[126] Crucial for this discussion is that elements of the Uluburun cargo appear to be manifestations of elite exchange, the ship seems to be sailing toward the Aegean, and Egyptian and Hittite sources inform us that ambassadors of some type existed in Minoan and Mycenaean palace administrations. These observations allow us to consider an Aegean palatial presence on board, though this hypothesis may never be demonstrable.

DEPARTURE AND DESTINATION

Unlike hypotheses for gift exchange put forth by Hankey and Cline, the evidence presented in this paper does not point to a specific ambassadorial mission acknowledged or even manifested in the archaeological or textual records of the participating kingdoms. I am reluctant to describe a gesture of gift exchange on board the Uluburun ship at all. A gift, as defined here, cannot be distinguished from a commodity in the archaeological record. Nevertheless, the inventory of elite manufactured objects recovered from the wreck and the invaluable haul of metal were almost certainly circulating through palatial exchange networks. We should address the possibility that one or more polities in the Aegean may have been destined to receive them. Is it possible, or even desirable, to narrow the range of potential participating palaces? With the exception of Hattusha's tenuous relationship with Ahhiyawa, and the possibility that Aegean mercenaries served in the army of Pharaoh during the Amarna period, little is known of how the LH/LM IIIA–B centers participated in the politics of the eastern Mediterranean. Some of the manifestations of interregional exchange, however, are more observable.

One element of the Uluburun cargo, namely the large pithoi filled with Cypriot pottery,[127] should be considered in this regard. Ceramics never appear in documents recording gift exchange, and Hirschfeld's observation that the Cypriot ceramics are cheaply manufactured further suggests they were intended for nonelite consumers.[128] The humbler component of the cargo (and perhaps other commodities on board as well) may have been destined for nonelite markets and may represent private interest on the ship.

The conflation of private (entrepreneurial) and state-sponsored (palatial) merchant activity has been recognized and variously addressed in Bronze Age scholarship.[129] Zaccagnini observes that *tamkār* (merchant) in the Mari archives was a functionary of the palace, though additionally he could operate in the interests of private persons.[130] We should also consider that these merchants were perhaps opportunistically pursuing profit on their own behalf, rather than serving only the interests of palaces and private investors.[131]

This observation may have important implications for the itinerary of the Uluburun ship. Pulak suggests the cargo was laded at one or two ports, to be delivered to a single destination.[132] The elite nature of the cargo certainly suggests there were fixed destinations for the ship. However, if private enterprise and palatial enterprise were not mutually exclusive activities in Bronze Age trade, and if aspects of the cargo reveal some manner of profit motive, can we be sure that the merchants on board were not calling at any number of ports?

Departure

It is perhaps ironic that the only evidence to date for LH/LM IIIA–B Aegean-based emissaries is found in the Hittite archives. Both references to Ahhiyawan messengers in the letters of Hattusili III describe them as falling short of their gift-giving obligations. Additionally, the virtual absence of LH IIIA–B pottery in central Anatolia is widely believed to represent Hittite restrictions on Aegean imports.[133] These same policies may have affected Aegean pottery distributions in Cilicia (via the port of Ura, which was

[124] Laroche 1971, 25, cat. no. 181.

[125] See p. 356.

[126] Bachhuber 2003, 138–44.

[127] Pulak 2001, 40.

[128] N. Hirschfeld, pers. comm. 2004.

[129] Leemans 1950, 119–25; Astour 1972, 26; Zaccagnini 1977, 172–80; 1987, 57; Wiener 1987, 264; Sherratt and Sherratt 1991; Knapp 1993; Knapp and Cherry 1994; Manning and Hulin 2005, 273.

[130] Zaccagnini 1977, 172–74.

[131] Wiener 1987, 264; see also Manning and Hulin 2005, 283 (citing Artzy 1997).

[132] Pulak 1997, 251; 1998, 215.

[133] Yakar 1976, 117–28; Sherrat and Crouwell 1987, 345; Cline 1991, 140; 1994, 71–4; Kozal 2003, 72.

closely associated with the Hittite vassal Tarhuntassa),[134] the entrepôt joining the land of Hatti to the circuit of maritime trade in the Mediterranean. Significantly, very little LH IIIA–B pottery has been identified in Cilicia (compared with Syro-Palestine and Cyprus).[135] Hattuša does not appear to be a healthy trade partner with the Aegean. It is also notable that Anatolian objects are scarcely represented on board the Uluburun ship.[136]

I agree with Pulak that the Uluburun ship likely called at Ras Shamra/Ugarit on its last journey.[137] Like Ura, Ugarit was a Hittite vassal and an important link to maritime commerce. Unlike Cilicia, Ugarit imported large quantities of LH IIIA–B pottery.[138] Ugarit, then, appears not to have been influenced by the proposed Hittite trade restrictions on Aegean imports discussed above. Several scholars have suggested that the importance of Ugarit as an emporium allowed it some degree of neutrality or autonomy, thus leaving it relatively free of Hittite meddling.[139]

Ugarit should, therefore, remain on the list of candidates engaged in high-level exchanges with the Aegean. It is salient that the Linear B archives record numerous Semitic loan words for various exotic resources,[140] although Mycenaean records of direct contact or exchange with Syro-Palestine do not exist. However, scholars increasingly attribute the scarcity of evidence for exchange in the Linear B archives to the media on which exchange entries were recorded. Perhaps more extensive accountancy of trade existed on perishable media that do not survive in the archaeological record.[141]

We might question, however, if a Hittite vassal would risk engaging in high-level exchanges with a region that was probably not on good terms with Hattuša. But Byblos was further removed from the Hittite sphere of influence (aligning itself with Egypt at least during the Amarna period). Significant quantities of LH IIIA–B pottery have also been identified in Byblos.[142] This prominent Lebanese emporium may have had interest in the cargo of the Uluburun ship, though, again, there is no conclusive evidence to argue one way or the other. The same can be said for every other Syro-Palestinian center south of Byblos that exhibits imported Aegean ceramics.[143]

Relatively few objects and materials from Egypt or Nubia are represented on board the Uluburun ship.[144] The only significant quantity of African cargo is approximately 24 logs of ebony,[145] though these are also depicted in the hands of Syrian tribute bearers in 18th-Dynasty tomb paintings.[146] We should consider the possibility that the Uluburun ship's ebony may have been transshipped from Egypt to another emporium in the eastern Mediterranean, before being laden into the cargo. Alternatively, if the ship had visited Egypt, perhaps much of the African cargo of transport ceramics or other manufactured objects had already been unladed in Syro-Palestine, Anatolia, or on Cyprus.

As is Cline, I am intrigued by the interpretive potential of Aegean mercenaries depicted on the illustrated papyrus from el-Amarna. It is significant that the mercenaries appear to be running to save a stricken Egyptian soldier. Additionally, Egyptians may have been living in the Aegean. The Linear B archives of Knossos record the names of two Egyptian foreign ethnics. One (*a_3-ku-pi-ti-jo/Aiguptios/*) is a shepherd listed on Db 1105; the other (*mi-sa-ra-jo/Misraios/*) is an "Egyptian" receiving foodstuffs on F(2) 841. Shelmerdine emphasizes the prosaic nature of these men, who are "assimilated into ordinary local contexts, not related to foreign affairs of any kind."[147] Nilotic loan words, however, are not represented in the Linear B archives. This contrast with Semitic loan words is significant and again raises the question of whether Egypt and the LH/LM III Aegean were in regular, direct trade contact. We should, nevertheless, maintain the possibility that powers in Egypt had some bearing on, if not interest in, the Uluburun cargo.

This leaves the island of Cyprus. A significant inhibiting feature of Late Bronze Age Cyprus is that Cypro-Minoan script remains indecipherable. Consequently, we know very little of the motivations of the Cypriot elite. The importance of Cyprus to the

---

[134] Ura is best known from an Ugaritic archive, recording a desperate plea from Hattuša for a large shipment of grain via Mukis (Nougayrol et al. 1968, 107, lines 20–4). The shipment was to arrive at the port of Ura, which has yet to be conclusively identified on the Cilician coast, though many associate the Hittite port with modern Silifke (classical Seleucia) (see Davesne et al. 1987).

[135] Sherratt and Crouwell 1987, 345.

[136] While still not conclusive, lead isotope data from the lead fishnet sinkers on board the Uluburun ship and pieces of scrap silver (Pulak 2001, 23–5) point to ore sources in the south–central Taurus range of southern Anatolia.

[137] See p. 347.

[138] Leonard 1994, 208–9; Van Winjgaarden 2002, 37–73.

[139] For references, see Cline 1994, 48.

[140] Shelmerdine 1998, 291.

[141] Killen 1985, 267–68; Shelmerdine 1998, 293 (after Weingarten 1983); Wachsmann 1998, 154 (after Uchitel 1988, 21–2).

[142] Leonard 1994, 204–5.

[143] See Leonard 1994. See also Artzy (2005) for further discussion of possible Late Bronze Age emporia along the Carmel coast.

[144] Bass et al. 1989, 26.

[145] Pulak 1998, 203; 2001, 30–1.

[146] Davies 1943; Pulak 1998, 215.

[147] Shelmerdine 1998, 295.

trade economy of the Late Bronze Age eastern Mediterranean, however, is certain. Alashiya in the Amarna Letters appears to have risen to prominence as the chief exporter of copper in the Mediterranean. Recent petrographic analyses on the Alashiya letters from the Amarna archives suggest a Cypriot origin for the clay tablets, which gives greater credence to the identification of Alashiya with Cyprus.[148] It seems likely that centers on Cyprus enjoyed healthy relations with the Aegean, as the flourishing of imported LH IIIA2–B ceramics on the island seems to indicate. It is perhaps significant that Cyprus exhibits more LH IIIA2–B pottery than Syro-Palestine and Egypt combined.[149]

Recent interpretations of the term *ku-pi-ri-jo* (Cypriot) in the Linear B archives conclude that direct exchanges between the Mycenaean kingdoms and agents from Cyprus did occur. Killen, following Olivier[150] on the role of "collectors" in the Mycenaean palatial economy, suggests that officials titled *ku-pi-ri-jo* at Knossos and Pylos acted as intermediaries in trading activities with Cyprus, or Cypriot-based merchants.[151] Additionally, Hirschfeld's study of Cypro-Minoan–marked LH IIIB vases identified in the Argolid and abroad offers an intriguing hypothesis for Aegean contact with Cypriot merchants.[152] This thin accumulation of evidence for ties between Cyprus and the LH/LM IIIA–B Aegean places a Cypriot center (Alassa? Kition? Enkomi?) at the top of a tentative list of polities who may have had interest in the Uluburun cargo.[153]

Destination

Several considerations narrow the range of possible destinations for the Uluburun cargo. Cline notes the concentration of exotic imports in the Aegean centers of LH/LM IIIA–B Mycenae, Tiryns, Knossos, Kommos, and Ialysos, and suggests these clusters point to "specific points of entry." From the entrepôts, the non-Aegean imports could have been redistributed to other centers and lesser communities within the Aegean.[154]

Cline's observation has important implications for the cargo. A single center could have received the bulk of the cargo, including the precious objects and materials that mirror the Amarna gift inventories. The same center could then redistribute the bulk commodities to other centers within the Aegean. This should alleviate any apprehensions that the cargo of the Uluburun ship was too massive for the economy of a single Aegean palace to absorb.[155]

Geography and textual evidence may narrow Cline's specific ports of entry to a likely destination for all or some of the elite cargo. Three of the five ports are on Rhodes (Ialysos) and Crete (Knossos and Kommos). These islands form the southern and eastern Aegean gateways to the eastern Mediterranean. The shipwrecks of Uluburun and Cape Gelidonya clearly demonstrate that westbound Levantine commerce in the Late Bronze Age followed the southern Anatolian coast to the Aegean. These merchants would have encountered Rhodes if they wished to engage the Aegean in trade.

Bronze Age Rhodes remains relatively enigmatic. The island has yet to produce significant excavated Bronze Age settlements, let alone anything resembling a palace. However, substantial quantities of Cypriot ceramics and bronzes appear in the LH IIIA1–2 cemetery at Ialysos.[156] Such examples of increased grave wealth suggest a time of relative pros-

[148] Goren et al. 2003.

[149] Catling 1964, 38.

[150] Olivier 1967.

[151] Killen 1995, 214–21.

[152] Hirscheld (1996, 291) notes that only about 200 vases out of the entire corpus of excavated LHIIIA–B Aegean pottery are "post-firing incised." She suggests the rarity of incised marks on Aegean pottery points to some "specific and directed use, i.e., a marking system." The incised marks are thus tied to Cypriot trade, a view based on the following observations: (1) the marks that have been unequivocally identified as notation are Cypro-Minoan characters, (2) the largest quantity and variety of incised vases appear on Cyprus, and (3) the practice of post-firing incising occurs widely on Cyprus on both local and imported pottery. Conversely, inscribed vases are rare in the Aegean (Hirschfeld 1993, 313). The Cypriot-inscribed Aegean pottery is not confined to Cyprus. The Levant has produced significant quantities, but, more important, so has the Argolid (Hirschfeld 1996, 291). The appearance of 24 post-firing vases in the Argolid (the vast majority at Tiryns) suggests to Hirschfeld that the vases were incised with Cypriot marks prior to their export. The inconsistent patterning of the marks from vessel to vessel, which appear not to specify shape, size, fabric, decorative motif, context, site, or geographical location, are likely idiosyncratic notation systems, which were "designations made by those who handled the merchandise" (Hirschfeld 1996, 292). Of the two possibilities for the handlers of the merchandise (Cypriots or Aegean), Hirschfeld (1996, 293) prefers the simpler scenario, assigning Cypriots the role of marking the vases with their own script. Thus, Cypriot agents may have been on Aegean soil, marking the pottery intended for export to Cyprus. To my knowledge, the only other possible evidence for foreign merchants in the Late Bronze Age Aegean is a pair of Syro-Palestinian or Cypriot anchors at Kommos on Crete used as column bases (Shaw 1995, 285–86; Rutter 1999, 141).

[153] For an intriguing discussion concerning the location of the political center of Alashiya based on the petrographic analysis of the Alashiya tablets in the Amarna archive, see Goren et al. 2003, 248–52.

[154] Cline 1994, 86–7.

[155] Portions of the cargo could have also remained on board, continuing the eastern Mediterranean circuit.

[156] Mee 1982, 20–2, 85; Benzi 1996, 951.

perity on the island (compared with earlier periods).[157] It is probably not a coincidence that the escalation of Aegean export activity in LH IIIA2 corresponds with the increased wealth exhibited in the LH IIIA2 Rhodian tombs.[158]

Sherratt suggests that Rhodes was one of two entrepôts (including Kommos on Crete) joining the LH/LM IIIA–B Aegean to the greater eastern Mediterranean circuit.[159] Voutsaki hypothesizes LH IIIA2–B Rhodes was politically subservient to a palace on the Greek mainland, proposing that a mainland force had conquered at least part of Rhodes as a vital link to the interregional maritime circuit.[160] Both models could conclude that the entire Uluburun cargo was destined for Rhodes.[161]

Voutsaki highlights the relative paucity of Near Eastern seals and other non-Aegean (and non-Cypriot) objects on Rhodes. Thus, when a cargo was delivered to Rhodes, the most desirable elite objects and materials would have continued onto the palatial overlord on the mainland.[162] This dearth could also mean, however, that the elite and foreign objects were not being unladed on Rhodes in the first place. Sherratt believes the distance separating Rhodes from the mainland ensured its autonomy.[163] Presumably if an entire cargo (including gift exchange elements) was delivered to Rhodes, and Rhodes was autonomous, the island must have had a center capable of receiving and using wares and resources that had circulated among the Near Eastern elite; this center has yet to be identified. The ambiguity of Rhodes leaves us to consider other destinations for the elite elements of the Uluburun ship's cargo.

Crete's role in linking the Aegean to the civilizations of the greater Levant is not in doubt. After the crisis on LM IB Crete that marked the end of Minoan civilization, Crete appears to have led the Aegean in resuming interregional exchange activities.[164] The number of imported objects identified on LM IIIA–B Crete (148)[165] vs. those on the LH IIIA–B mainland (33)[166] clearly shows commerce gravitating toward the island contemporary to the (LH/LM IIIA2) sinking of the Uluburun ship. Linear B tablets at both Knossos and Pylos show possible evidence for contacts abroad,[167] though Pylos has not produced a single foreign object from the LH IIIA period.[168] Linear B texts at Pylos also postdate the Uluburun wreck, whereas most of the Knossos tablets are contemporary.

The only challenger to Knossos for a LH/LM IIIA2 high-level exchange is Mycenae, through the neighboring harbor citadel of Tiryns. Mycenae exhibits the largest concentration of exotic objects on the Late Bronze Age Greek mainland (outnumbering on Crete Knossos and second to Kommos).[169] Mycenae is unrivaled on the mainland in size and presumed political gravity and should not be excluded as a possible destination for the elite elements of the Uluburun cargo.

The emporium of Kommos in the western Mesara, however, tips the balance in favor of Crete as the primary destination. Kommos boasts the greatest concentration of foreign objects in the Bronze Age Aegean. A pair of Syro-Palestinian or Cypriot anchors similar to the anchors hauled aboard the Uluburun ship was identified in an LM IIIA2 context at Kommos,[170] as well as dozens of Cypriot table wares and pithoi, more than 50 Canaanite jars, and about 36 Egyptian jars and flasks,[171] all recovered from mostly LM IIIA contexts.

Sherratt suggests that LM III Kommos was closely related to Knossos, if not under some measure of administrative control.[172] Kommos, like Rhodes, does not exhibit higher-status foreign objects such as cylinder seals, stone vases, and so forth. Rutter suggests that the more prestigious imports arriving at nonpalatial Kommos continued inland to the palaces.[173] On Crete, the problem of distance and control is considerably less than between the Greek mainland and

---

[157] Benzi 1988, 62–4.

[158] Mee 1982, 82; Benzi 1996, 950–51.

[159] Sherratt 1999, 183; 2001, 220–21.

[160] Voutsaki 2001, 209–11.

[161] Rutter (2005) observes that the eclectic forms of Aegean ceramics on board the Uluburun ship (manufactured on Crete, in the Dodecanese, the Greek mainland, and coastal western Anatolia) most resemble the burial assemblages of the LH IIIA2 Rhodian tombs.

[162] Voutsaki 2001, 210.

[163] Sherratt 2001, 222–23 n. 17.

[164] Cline 1994, 9.

[165] Cline 1998b, appx. 1. Cline updates his 1994 catalogue for imported objects on Crete. The sum total includes objects designated LM III, LM II–IIIA1, LM IIIA, LM IIIA1, LM IIIA2, LM IIIA–B, and LM IIIA2–B. The total does not include objects designated LM IIIB.

[166] Cline 1994, table 4. The total includes objects designated LH IIIA and LH IIIA–B; it does not include objects designated LH IIIB.

[167] See p. 357.

[168] Cline 1994, tables 63–9.

[169] Cline 1994, table 70.

[170] Shaw 1995, 285–86; Rutter 1999, 141. The Syria-Palestinian anchor is exceptionally rare in the Aegean. The Point Iria shipwreck (ca. 1200 B.C.) has yielded two examples (Vichos 1996), and one missing a provenence is on display at the Mykonos Museum (Rutter 1999, 141).

[171] Rutter 1999, 142, tables 1–3.

[172] Sherratt 2001, 221.

[173] Rutter 1999, 141–42.

Rhodes. Sherratt observes that the Knossian Linear B tablets show a strong interest in Phaistos, which may denote the region occupied by Kommos, Ayia Triada, and the abandoned Phaistos palace.[174] It is not difficult to imagine Kommos, the most lucrative emporium in the LH/LM IIIA2 Aegean, under the sway of the most powerful polity on Crete. While the Argolid should not be excluded as a destination, Knossos held center stage in the Minoan era as an important polity in the Aegean. Knossos, with a probable emporium at Kommos, also possessed the geographic advantage of sitting on the periphery of the Aegean in line with the eastern Mediterranean circuit. It may also be significant that the majority of the Aegean stirrup jars on the Uluburun ship, though in recirculation, were of Cretan manufacture.[175] Knossos may have held a profound interest in the cargo of the Uluburun ship.

CONCLUSION

Is there enough evidence to suggest that the cargo and personnel of the Uluburun ship represent an ambassadorial mission to the LH/LM IIIA2 Aegean? The inherent limitations of the archaeological context for exploring complex, politically charged behavior may forever leave scholars guessing at the implications of the wreck site. Nevertheless, the ship did not sink into a vacuum; rather, it met its demise in a context that has been the focus of a scholarship increasingly concentrated on the issue of long-distance exchange in the greater eastern Mediterranean. We are able to study the shipwreck through philological and archaeological lenses provided by this research.

There is enough evidence to suggest, with confidence, that the ship and its cargo were en route to the Aegean. To argue otherwise necessarily calls for special pleading.[176] I also propose that elements of the cargo were circulating within elite exchange networks, while other items appear to be destined for nonpalatial consumers. The parallels between aspects of the cargo and the gift inventories and deliveries in the Amarna Letters are striking and should leave open the possibility that one or more palaces held a vested interest in the Uluburun cargo. It must be stressed, however, that a gift exchange, or a manifestation of a political and personal correspondence between two rulers, is not evident.

My investigation moves onto less sure ground in discussions of the ship's personnel. While the Amarna Letters and other Late Bronze Age texts mention individuals called "messengers," whose duty it was to accompany gift-exchange deliveries, both the uncertainty surrounding the gift exchange nature of the cargo and the inherent ambiguities of the ornamental and utilitarian objects Pulak has labeled "personal effects" prevent any definitive statements as to the nature of the personnel. Nevertheless, the patterns of objects do suggest that two individuals with greater affinity to the Aegean than any other region in the eastern Mediterranean were on board. The pattern of Aegean objects is distinct within a matrix of Near Eastern utilitarian and ornamental objects, as well as within the matrix of cargo and anchors that were clearly laded at a Near Eastern port. This observation allows a range of speculation. Egyptian and Hittite sources indicate that the Minoans sent emissaries to Egyptian Thebes, and that Ahhiyawans (Mycenaeans) sent messengers to Hattusha. We should, therefore, not rule out Pulak's suggestion that the proposed individuals of Aegean origin may have been representing the interests of a Mycenaean palace.

The Uluburun ship's cargo was desirable, and the palace (Knossos?), which may have been destined to receive even a fraction of the metal and elite objects, would have cultivated considerable prestige and power among its subjects and rivals. This cargo would have had lasting effects on the economic well-being, and probably also the political climate, of the intended recipient. Beyond the Aegean, the unfulfilled delivery of the cargo may have sent harmful reverberations through a network that appears to have joined the Aegean elite to their neighbors in the eastern Mediterranean.

ST. JOHN'S COLLEGE
UNIVERSITY OF OXFORD
OXFORD OX1 3JP
UNITED KINGDOM
CHRISTOPH.BACHHUBER@ST-JOHNS.OXFORD.AC.UK

Works Cited

Artzy, M. 1997. "Nomads of the Sea." In *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to*

[174] Sherratt 2001, 221 n. 16.

[175] Rutter 2005.

[176] Bloedow (2005, 339–41) has raised the possibility that the Uluburun ship was blown off course by a powerful east wind (*apeliotes anemos*) as it set sail from Ugarit en route to Egypt. While Bloedow has correctly identified numerous parallels between the cargo of the Uluburun ship and representations and descriptions of Syrian tribute to Egypt, and therefore suggests the Uluburun shipwreck represents a similar venture from Syria to Egypt, he does not consider that very similar materials were being delivered in every direction between the powers of the Near East/greater eastern Mediterranean.

Late Antiquity: Proceedings of the 2nd International Symposium "Cities on the Sea," Nicosia, Cyprus, October 18–22, 1994, edited by S. Swiny, R. Hohlfelder, and H.W. Swiny, 1–16. Atlanta: Scholars Press.

———. 2005. "Emporia on the Carmel Coast? Tel Akko, Tell Abu Hawam and Tel Nami of the Late Bronze Age." *Aegaeum* 25:355–61.

Arutinov, S.A., and A.M. Khazanov. 1981. "Das Problem der archäologischen Kriterian mit ethnischer Spezifik." *Ethnographisch-Archäologische Zeitschrift* 22:669–85.

Astour, M. 1972. "The Merchant Class of Ugarit." In *XVIII Recontre assyriologique internationale, Munchen, 29. Juni bis 3. Juli 1970,* edited by D.O. Edzard, 11–26. Munich: Bäyerischen Akademie der Wissenschaften.

Bachhuber, C. 2003. "Aspects of Late Helladic Sea Trade." M.A. thesis, Texas A&M University.

Bass, G. 1967. "Cape Gelidonya: A Bronze Age Shipwreck." *TAPS* 57(8):3–177.

———. 1973. "Cape Gelidonya and Bronze Age Maritime Trade." In *Orient and Occident: Essays Presented to Cyrus Gordon on the Occasion of His 65th Birthday,* edited by H. Hoffner, 29–38. Kevelaer: Butzon and Bercker.

———. 1986. "A Bronze Age Shipwreck at Ulu Burun (Kaş): 1984 Campaign." *AJA* 90(3):269–96.

———. 1991. "Evidence of Trade from Bronze Age Shipwrecks." In *Bronze Age Trade in the Mediterranean*, edited by N.H. Gale, 69–82. Jonsered: Paul Åströms Förlag.

———. 1997. "Beneath the Wine Dark Sea: Nautical Archaeology and the Phoenicians of the Odyssesy." In *Greek and Barbarians: Essays on the Interactions Between Greeks and Non-Greeks in Antiquity and the Consequences of Eurocentrism,* edited by J.E. Coleman and C.A. Waltz, 71–101. Bethesda: CDL Press.

———. 1998. "Sailing Between the Aegean and the Orient in the Second Millennium B.C." *Aegeaum* 18:183–92.

Bass, G., C. Pulak, D. Collon, and J. Weinstein. 1989. "The Bronze Age Shipwreck at Uluburun: 1986 Campaign." *AJA* 93(1):1–29.

Benzi, M. 1988. "Mycenaean Rhodes: A Summary." In *Archaeology in the Dodecanese*, edited by S. Dietz and I. Papachristodoulou, 59–72. Copenhagen: National Museum of Denmark Department of Near Eastern and Classical Antiquity.

———. 1996. "Problems of the Mycenaean Expansion in the South-Eastern Aegean." In *Atti e Memorie del Secondo Congresso Internazionale di Miconologia.* Vol. 3, edited by E. De Miro, L. Godart, and A. Sacconi, 947–78. Rome: Gruppo editoriale internazionale.

Birot, M. 1974. *Lettres de Yaqqim-Addu, gouverneur de Sagaratum (Archives royals de Mari XIV).* Paris: Librarie orientaliste P. Geuthner.

Bloedow, E. 2005. "Aspects of Trade in the Late Bronze Age Mediterranean: What Was the Ultimate Destination of the Uluburun Ship?" *Aegaeum* 25:335–41.

Bourdieu, P. 1977. *Outline of a Theory of Practice.* Cambridge: Cambridge University Press.

Brovarski, E. 1987. "Two Old Kingdom Writing Boards from Giza." *Annales de Service des Antiquités de l'Égypte* 71:27–52.

Catling, H.W. 1964. *Cypriot Bronze Work in the Mycenaean World.* Oxford: Oxford University Press.

Cline, E. 1987. "Amenhotep III and the Aegean: A Reassessment of Egypto-Aegean Relations in the 14th Century B.C." *Orientalia* 56(1):1–36.

———. 1990. "An Unpublished Amenhotep III Faience Plaque from Mycenae." *JAOS* 110(2):200–12.

———. 1990–1991. "Contact and Trade or Colonization?: Egypt and the Aegean in the 14th–13th Centuries B.C." *Minos* 25/26:7–36.

———. 1991. "A Possible Hittite Embargo Against the Mycenaeans." *Historia* 40(1):1–9.

———. 1994. *Sailing the Wine Dark Sea: International Trade and the Late Bronze Age Aegean.* Oxford: Oxford University Press.

———. 1995a. "'My Brother, My Son': Rulership and Trade Between the LBA Aegean, Egypt and the Near East." *Aegaeum* 11:143–50.

———. 1995b. "Egyptian and Near Eastern Imports at Late Bronze Age Mycenae." In *Egypt, the Aegean and the Levant: Interconnections in the Second Millennium B.C.,* edited by W. Davies, V. Schofield, and L. Schofield, 91–115. London: British Museum Press.

———. 1998a. "Amenhotep III, the Aegean, and Anatolia," In *Amenhotep III: Perspectives on His Reign,* edited by D. O'Connor and E. Cline, 236–50. Ann Arbor: University of Michigan Press.

———. 1998b. "The Nature of the Economic Relations of Crete with Egypt and the Near East during the Late Bronze Age." In *From Minoan Farmers to Roman Traders: Sidelights on the Economy of Ancient Crete*, edited by A. Chaniotis, 115–44. Stuttgart: Franz Steiner Verlag.

Clogg, R. 1992. *A Concise History of Greece.* Cambridge: Cambridge University Press.

Davesne, A., A. Lemaire, and H. Lozachemeur. 1987. "Li site archéologique de Meydancikkale (Turqie): Du royaume de Pirindu à la ranison ptolémaïque." *Comptes rendus de l'Acadême des Inscriptions et Belles-Lettres* 1987:373–76.

Davies, N. 1943. *The Tomb of Rechmire at Thebes.* New York: Metropolitan Museum of Art Egyptian Expedition.

De Fidio, P. 1989. "L'artigianato del bronzo nei testi micenei de Pilo." *Klio* 71(1):7–27.

Deshayes, J. 1960. *Les outils de bronze, de l'Indus au Danube.* Vol. 2. Paris: Geuthner.

De Vos, G.A., and L. Romanucci-Ross. 1995. "Ethnic Identity: A Psychocultural Perspective." In *Ethnic Identity: Creation, Conflict and Accommodation,* edited by L. Romanucci-Ross and G. De Vos, 349–79. Walnut Creek, Calif.: Altamira Press.

Edel, E. 1966. *Die Ortsnamenlisten dem Totentempel Amenhopis III.* Bonn: Peter Hanstein.

Emberling, G. 1997. "Ethnicity in Complex Societies: Archaeological Perspectives." *Journal of Archaeological Research* 5:295–344.

Geary, P. 1983. "Ethnic Identity as a Situational Construct in the Early Middle Ages." *Mitteilungen der anthropologischen Gesellschaft in Wien* 113:15–26.

Gillis, C. 1995. "Trade in the Late Bronze Age." In *Trade and Production in Premonetory Greece: Aspects of Trade: Proceedings of the Third International Workshop, Athens 1993*, edited by C. Gillis, C. Risberg, and B. Sjöberg, 61–86. Jonsered: Paul Åströms Förlag.

Goren, Y., S. Bunimovitz, I. Finkelstein, and N. Na'Aman. 2003. "The Location of Alashiya: New Evidence from Petrographic Investigation of Alashiyan Tablets from El-Amarna and Ugarit." *AJA* 107(2):233–55.

Gregory, C.A. 1982. *Gifts and Commodities.* London: Aca-

demic Press.
Haider, P.W. 1988. *Griechenland-Nordafrika.* Darmstadt: Wissenschaftliche Buchgesellschaft.
Hairfield, H.H., and E.M. Hairfield. 1990. "Identification of a Late Bronze Age Resin." *Analytical Chemistry* 62(1):41A–45A.
Hall, J. 1997. *Ethnic Identity in Greek Antiquity.* Cambridge: Cambridge University Press.
Hankey V. 1973. "The Aegean Deposit at el Amarna." In *Acts of the International Archaeological Symposium: "The Mycenaeans in the Eastern Mediterranean,"* edited by V. Karageorghis, 128–36. Nicosia: Department of Antiquities, Cyprus.
———. 1981. "The Aegean Interest in el Amarna." *Journal of Mediterranean Anthropology and Archaeology* 1:38–49.
———. 1987. "The Chronology of the Aegean Late Bronze Age." In *High, Middle or Low?: Acts of an International Colloquium on Absolute Chronology Held at the University of Gothenburg, 20–22 August 1987, Part 2,* edited by P. Åström, 39–59. Göteborg: Paul Åströms Förlag.
Harden, D.B. 1981. *Catalogue of Greek and Roman Glass in the British Museum.* Vol. 1, *Core- and Rod-formed Vessels and Pendants and Mycenaean Art Objects.* London: British Museum.
Harding, A., and H. Hughes-Brock. 1974. "Amber in the Mycenaean World." *BSA* 69:145–72.
Hawkins, J.D. 1998. "Tarkasnawa King of Mira: 'Tarkondemos,' Boğazköy Sealings and Karabel." *AnatSt* 48:1–31.
Hirschfeld, N. 1993. "Incised Marked (Post Firing) on Aegean Wares." In *Wace and Blegen: Pottery as Evidence for Trade in the Aegean Bronze Age,* edited by C. Zerner, P. Zerner, and J. Winder, 311–18. Amsterdam: J.C. Gieben.
———. 1996. "Cypriots in the Mycenaean Aegean." In *Atti e memorie del Secondo Congresso internazionale di micenologia, Roma-Napoli 14–20 Octobre 1991.* Vol. 1, *Fiologia, Incunabula Graeca 98,* edited by E. Demiro, L. Godart, and A. Saconi, 289–97. Rome: Gruppo editoriale internazionale.
Just, R. 1989. "Triumph of the Ethnos." In *History and Ethnicity,* edited by E. Tonkin, M. McDonald, and M. Chapman, 71–88. London: Routledge.
Kemp, B.J., and R. Merrillees. 1980. *Minoan Pottery in Second Millennium Egypt.* Mainz am Rhein: Phillip von Zabern.
Killen, J.T. 1985. "The Linear B Tablets and the Mycenaean Economy." In *Linear B: A 1984 Survey: Mycenaean Colloquium of the VIII Congress of the International Federation of the Societies of Classical Studies. Bibliotéque des Cahiers de l'Institute de Linguistiqe de Louvain 26,* edited by M. Davies, A. Duhox, and Y. Duhoux, 241–305. Louvain-la-Neuve: Cabay.
———. 1987. "Bronzeworking at Knossos and Pylos." *Hermathena* 143:61–2.
———. 1995. "Some Further Thoughts on Collectors." *Aegaeum* 12:213–26.
Knapp, A.B. 1991. "Spice, Drugs, Grain and Grog: Organic Goods in Bronze Age East Mediterranean Trade." In *Bronze Age Trade in the Mediterranean,* edited by N.H. Gale, 21–68. Jonsered: Paul Åströms Forlag.
———. 1993. "Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth." *WorldArch* 24(3):332–47.
Knapp, A.B., and J. Cherry. 1994. *Provenience Studies and Bronze Age Cyprus: Production, Exchange and Politico-Economic Change.* Madison, Wis.: Prehistory Press.
Kopcke, G. 1997. "Mycenaean Ivories." *Aegaeum* 16: 141–43.
Kozal, E. 2003. "Red Lustrous Wheel-made Ware, Mycenaean and Cypriot Pottery in Anatolia." In *Identifying Changes: The Transition from Bronze to Iron Ages in Anatolia and Its Neighboring Regions: Proceedings of the International Workshop, Istanbul, November 8–9, 2002,* edited by B. Fischer, H. Genz, E. Jean, and K. Köroğlu, 65–78. Istanbul: Türk Eskiçağ Bilimleri Enstitüsü.
Kuniholm, P., B. Kromer, S. Manning, M. Newton, C. Latini, and M. Bruce. 1996. "Anatolian Tree Rings and the Absolute Chronology of the Eastern Mediterranean." *Nature* 381:780–83.
Kupper, J. 1950. *Correspondence de Kibri-Dagan, gouverneur de Terqa (Archives royals de Mari III).* Paris: Impremerie Nationale.
Lamberg-Karlovsky, K. 1963. "Notes and News: Amber and Faience." *Antiquity* 37:301–2.
Lang, M. 1966. "Jn Formulas and Groups." *Hesperia* 35 (4):397–412.
Laroche, E. 1971. *Catalogue des textes Hittites.* Paris: Klencksieck.
Leemans, W.F. 1950. *The Old Babylonian Merchant, His Business and His Social Position.* Leiden: Brill.
Lejeune, M. 1961. "Les forgerons de Pylos." *Historia* 10:409–34.
Leonard, A. 1994. *An Index to the Late Bronze Age Aegean Pottery from Syria-Palestine.* Jonsered: Paul Åströms Förlag.
Lilyquist, C. 1999. "On the Amenhotep III Inscribed Faience Fragments from Mycenae." *JAOS* 119:303–8.
Lindgren, M. 1973. *The People of Pylos,* Vol. 2. Uppsala: Acta Universitatis Upsaliensis.
Liverani, M. 1979. "Irrational Elements in the Amarna Trade." In *Three Amarna Essays,* edited and translated by M. Jaffe, 21–34. Malibu: Undena Publications.
———. 2000. "The Great Powers Club." In *Amarna Diplomacy: The Beginnings of International Relations,* edited by R. Cohen and R. Westbrook, 15–27. Baltimore: Johns Hopkins University Press.
Malinowski, B. 1922. *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea.* London: Routledge.
Manning, S., and L. Hulin. 2005. "Maritime Commerce and Geographies of Mobility in the Late Bronze Age of the Eastern Mediterranean: Problemizations." In *The Archaeology of Mediterranean Prehistory,* edited by E. Blake and A.B. Knapp, 270–91. Oxford: Blackwell.
Manning, S., B. Kromer, P. Kuniholm, and M. Newton. 2001. "Anatolian Tree Rings and a New Chronology for the East Mediterranean Bronze-Iron Ages." *Science* 294(2):2532–35.
Marx, K. 1867. *Capital.* Vol.1, *A Critical Analysis of Capitalist Production.* Moscow: Progress Publishers.
Mauss, M. 1954. *The Gift.* London: Routledge and Kegan Paul.
Mee, C. 1982. *Rhodes in the Bronze Age: An Archaeological Survey.* Warminster: Aris and Phillips.
Meier, S.A. 1988. *The Messenger in the Ancient Semitic World. Harvard Semitic Monographs* 45. Atlanta: Scholars Press.
Melena, J.L. 1976. "La producción de plantas aromáticas

en Cnoso." *Estudios Clasicos* 20:177–90
Merrillees, R.S. 1968. *The Cypriote Bronze Pottery Found in Egypt.* Lund: Carl Bloms Boktryckeri.
———. 1974. *Trade and Transcendence in the Bronze Age Levant. SIMA* 39. Göteborg: Paul Åströms Forlag.
Mills, J.S., and R. White. 1989. "The Identity of the Resins from the Late Bronze Age Shipwreck at Ulu Burun (Kaş)." *Archaeometry* 31:37–44.
Moran, W. 1992. *The Amarna Letters.* Baltimore: Johns Hopkins University Press.
Newton, M., and P. Kuniholm. 2005. "The Wood from the Kaş Shipwreck at Uluburun: Dendrochronological and Radiocarbon Analyses Through 2004." Paper read at the 2005 Annual Meeting of the Archaeological Institute of America, 6–9 January, Boston.
Niebuhr, A.D. 1970. *Herbs of Greece.* Athens: J. Makris.
Niemeier, W.D. 1998. "The Mycenaeans in Western Anatolia." In *Mediterranean Peoples in Transition*, edited by S. Gittin, A. Mazar, and E. Stern, 17–65. Jerusalem: Israel Exploration Society.
Nougayrol, J., E. Laroche, C. Virolleaud, and C. Schaeffer. 1968. *Ugaritica V: Nouveaux texts accadiens, hourrites d'Ugarit: Commentaries des textes historiques (première partie).* Paris: Impremerie Nationale.
Olivier, J.P. 1967. "La serie Dn Cnossos." In *SMEA 2. Incunabula Graeca 18,* edited by C. Gallavotti, 71–93. Rome: Edizioni dell'Ateneo.
Payton, R. 1991. "The Uluburun Writing Board Set." *AnatSt* 41:99–110.
Pulak, C. 1988. "The Bronze Age Shipwreck at Ulu Burun, Turkey: 1985 Campaign." *AJA* 92(1):1–38.
———. 1997. "The Uluburun Shipwreck." In *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity: Proceedings of the Second International Symposium "Cities on the Sea," Nicosia, Cyprus, October 18–22, 1994,* edited by S. Swiny, R. Hohl-felder, and H.W. Swiny, 233–62. Atlanta: Scholars Press.
———. 1998. "The Uluburun Shipwreck: An Overview." *IJNA* 27:188–224.
———. 2000a. "The Copper and Tin Ingots from the Late Bronze Age Shipwreck at Uluburun." *In Der Anschnitt: Zeitschrift für Kunst and Kultur im Bergbau,* edited by U. Yalchin, 137–57. Bergbau: Der Anschnitt.
———. 2000b. "The Balance Weights from the Late Bronze Age Shipwreck at Uluburun." In *Metals Make the World Go Round,* edited by C.F.E. Pare, 247–66. Oxford: Oxbow.
———. 2001. "The Cargo of the Uluburun Ship and Evidence for Trade with the Aegean and Beyond." In *Italy and Cyprus in Antiquity 1500–450 B.C.,* edited by L. Bonfante and V. Karageorghis, 13–60. Nicosia: Cyprus Antiquities.
———. 2005. "Who Were the Mycenaeans Aboard the Uluburun Ship?" *Aegaeum* 25:295–312.
Rehak, P. 1998. "Aegean Natives in the Theban Tomb Paintings: The Keftiu Revisited." *Aegaeum* 18:39–51.
Rutter, J. 1999. "Cretan External Relations During Late Minoan IIIA2–B (ca. 1370–1200 B.C.): A View from the Mesara." In *The Point Iria Wreck: Interconnections in the Mediterranean ca. 1200 B.C.,* edited by W. Phelps, Y. Lolos, and Y. Vichos, 209–38. Athens: Hellenic Institute of Marine Archaeology.
———. 2005. "Assessing the Shipboard Profile of a Regional Ceramic Assemblage: The Aegean Pottery from the Uluburun Shipwreck." Paper read at the 2005 Annual Meeting of the Archaeological Institute of America, 6–9 January, Boston.
Schaeffer, C. 1978. *Ugaritca* 7. *Mission de Ras Shamra 18.* Paris: Libraire orientaliste Paul Geuthner.
Schofield, L., and R.B. Parkinson. 1994. "Of Helmets and Heretics: A Possible Egyptian Representation of Mycenaean Warriors on a Papyrus From El-Amarna." *BSA* 89:157–70.
Schulman, A. 1979. "Diplomatic Marriage in the Egyptian New Kingdom." *JNES* 38:177–93.
———. 1988. "Hittites, Helmets, and Amarna: Akhenaten's First Hittite War." In *The Akhenaten Temple Project.* Vol. 2, *Rwd-MNW, Foreigners and Inscriptions,* edited by D.B. Redford, 54–79. Toronto: Akhenaten Temple Project.
Shaw, J. 1995. "Two Three-holed Stone Anchors from Kommos, Crete: Their Context, Type and Origin." *IJNA* 24:279–91.
Shelmerdine, C. 1998. "Where Do We Go From Here?: The Linear B Tablets." *Aegaeum* 18:291–99.
Shennan, S. 1994. "Introduction: Archaeological Approaches to Cultural Identity." In *Archaeological Approaches to Cultural Identity*, 2nd ed., edited by S. Shennan, 1–32. Routledge: London.
Sherratt, S. 1999. "*E pur si muove*: Pots Markets and Values in the Second Millennium Mediterranean." In *The Complex Past of Pottery. Production, Circulation and Consumption of Mycenaean and Greek Pottery (Sixteenth to Early Fifth Centuries B.C.): Proceedings of the ARCHON International Conference, Held in Amsterdam, 8–9 November 1996,* edited by J.P. Crielaard, V. Stissi, and G.J. van Wijngaarden, 163–211. Amsterdam: J.C. Gieben.
———. 2001. "Potemkin Palaces and Route-Based Economies." In *Economy and Politics in the Mycenaean Palace States: Proceedings of a Conference Held on 1–3 July 1999 in the Faculty of Classics, Cambridge,* edited by S. Voutsaki and J. Killen, 214–54. Cambridge: Cambridge Philological Society.
Sherratt, S., and J.H. Crouwell. 1987. "Mycenaean Pottery from Cilicia in Oxford." *OJA* 6:325–52.
Sherratt, A., and S. Sherratt. 1991. "From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems." In *Bronze Age Trade in the Mediterranean,* edited by N.H. Gale, 351–86. Jonsered: Paul Åströms Forlag.
Smith, J. 1992–1993. "The Pylos Jn Series." *Minos* 27/28:167–259.
Sommer, F. 1975. Reprint. *Die Ahhijawa Urkunden.* Gertsenberg: Hildesheim. Original edition, 1932.
Stos-Gale, Z.A., H. Gale, G. Bass, C. Pulak, E. Galili, and J. Sharvit. 1998. "The Copper and Tin Ingots of the Late Bronze Age Mediterranean." In *The Fourth International Conference on the Beginning of the Use on Metals and Alloys.* BUMA 4, 115–26. Sendai: Japan Institute of Metals.
Symington, D. 1991. "Late Bronze Age Writing Boards and Their Uses: Textual Evidence from Anatolia and Syria." *AnatSt* 41:111–23.
Tambiah, S.J. 1989. "Ethnic Conflict in the World Today." *American Ethnologist* 16:335–49.
Uchitel, A. 1988. "The Archives of Mycenaean Greece and the Ancient Near East." In *Society and Economy in the Eastern Mediterranean (c. 1500–1000 B.C.): Proceedings of the International Symposium Held at the University of Haifa from April 28 to May 2, 1985*, edited by M.

Heltzer and E. Lipinski, 19–30. Leuven: Uitgeverij Peeters.

Vagnetti, L., and F. Lo Schiavo. 1989. "Late Bronze Age Long Distance Trade in the Mediterranean: The Role of the Cypriots." In *Early Society in Cyprus*, edited by E. Peltenberg, 217–43. Edinburgh: Edinburgh University Press.

Van Wijngaarden, G.J. 2002. *The Use and Appreciation of Mycenaean Pottery in the Levant, Cyprus and Italy (ca. 1600–1200 B.C.)*. Amsterdam: Amsterdam University Press.

Vichos Y. 1996. "Point Iria Wreck (1993). Part II: The Stone Anchors." *ENALIA Annual IV, 1992*:17–20.

Voutsaki, S. 2001. "Economic Control, Power and Prestige in the Mycenaean World: The Archaeological Evidence." In *Economy and Politics in the Mycenaean Palace States: Proceedings of a Conference Held on 1–3 July 1999 in the Faculty of Classics, Cambridge,* edited by S. Voutsaki and J. Killen, 195–213. Cambridge: Cambridge Philological Society.

Wachsmann, S. 1987. *Aegeans in the Theban Tombs*. Leuven: Uitgeerij Peeters.

———. 1998. *Seagoing Ships and Seamanship in the Bronze Age Levant*. College Station: Texas A&M University Press.

Warren, P.M., and V. Hankey. 1989. *Aegean Bronze Age Chronology*. Bristol: Bristol Classical Press.

Weingarten, J. 1983. "The Use of the Zakro Sealings." *Kadmos* 22(1):8–13.

Wiener, M. 1987. "Trade and Rule in Minoan Crete." *Function of the Minoan Palaces: Proceedings of the 4th International Symposium at the Swedish Institute in Athens, 10–16 June, 1984,* edited by R. Hagg and N. Marinatos, 261–67. *SkrAth* 4°, 35. Stockholm: Svenska Institutet i Athen.

Yakar, J. 1976. "Hittite Involvement in Western Anatolia." *AnatSt* 26:117–28.

Yannai, A. 1983. "Studies on Trade Between the Levant and the Aegean in the 14th to 12th Centuries B.C." Ph.D. diss., University of Oxford.

Zaccagnini, C. 1977. "The Merchant at Nuzi." *Iraq* 39: 171–89.

———. 1987. "Aspects of Ceremonial Gift Exchange in the Near East During the Late Second Millennium B.C." In *Centre and Periphery in the Ancient World,* edited by M. Rowlands, M.T. Larsen, and K. Kristensen, 47–57. Cambridge: Cambridge University Press.